

WHAT IS CLAIMED IS:

1. A method for actuating a dispensing system, the system includes a dispenser cavity and a dispenser, said method comprising:

intersecting at least two beams of light;

sensing the at least two beams of light; and

actuating the dispenser system based upon said sensing.

2. A method in accordance with Claim 1 wherein intersecting at least two beams of light comprises coupling a first infra-red (IR) light emitting diode (LED) element on a first wall of the cavity and coupling a second IR LED on a second wall of the cavity, wherein the second wall is opposite the first wall.

3. A method in accordance with Claim 2 wherein sensing the at least two beams of light comprises coupling a first IR photodetector on the first wall of the cavity and coupling a second IR photodetector on the second wall of the cavity, wherein each IR photodetector is positioned above each IR LED.

4. A method in accordance with Claim 2 wherein intersecting at two beams of light comprises directing a first beam of light from the first IR LED towards the first IR photodetector and directing a second beam of light from the second IR LED towards the second IR photodetector such that the first and the second beam of light intersect at an intersection point.

5. A method in accordance with Claim 1 wherein actuating the dispenser system comprises generating a first signal when at least one the first and second beams of light are impeded such that the dispenser system is actuated.

6. A method in accordance with Claim 5 wherein actuating the dispenser system comprises generating a second signal when both the first and second beams of light are unimpeded such that the dispenser system is deactivated.

7. An optical system for a dispenser system comprising:

at least two light emitting optic elements mounted on opposing first and second dispenser walls; and

at least two light receiving optic elements mounted on said opposing first and second dispenser walls, wherein each of said at least two light receiving optic elements is in optical communication with each of said at least two light emitting optic elements, wherein said at least two light receiving optic elements are in electromechanical communication with said dispenser system.

8. A system in accordance with Claim 7, wherein said at least two light emitting optic elements are infra-red (IR) light emitting diodes (LED) and said at least two light receiving optic elements are IR photodetectors.

9. A system in accordance with Claim 7, wherein said at least two light receiving optic elements are mounted above said at least two light emitting optic elements.

10. A system in accordance with Claim 7, wherein said at least two light receiving optic elements are in vertical alignment with said at least two light emitting optic elements.

11. A system in accordance with Claim 7, wherein said at least two light receiving optic elements cooperate with said at least two light emitting optic elements such that a first optical path and a second optical path are generated.

12. A system in accordance with Claim 11, wherein said first optical path and said second optical path intersect at an intersection point.

13. A system in accordance with Claim 11, wherein said at least two light receiving optic elements generate a signal to said dispenser if at least one of said first optical path and said second optical path are impeded.

14. A dispenser system comprising:

a top wall, a bottom wall, and a cavity extending therebetween, said top wall parallel said bottom wall;

a first wall, a second wall, and a third wall positioned therebetween, said second wall opposite said first wall, said third wall substantially perpendicular to both said first and second walls, said first, second, and third walls substantially perpendicular to both said top wall and said bottom wall;

at least one dispenser coupled to said third wall; and

an optical system coupled to said first and said second wall and in electromechanical communication with said at least one dispenser.

15. A system in accordance with Claim 14, wherein said optical system comprises:

a first light emitting optic element coupled to said first wall and a second light emitting optic element coupled to said second wall; and

a first light receiving optic element coupled to said second wall and a second light receiving optic element mounted on said first wall, wherein said first light emitting optic element is in optical communication with said first light receiving optic element and said second light emitting optic element is in optical communication with said second light receiving optic element such that a first optical path and a second optical path are generated.

16. A system in accordance with Claim 15, wherein said first and second light emitting optic elements are infra-red (IR) light emitting diodes (LED) and said first and second light receiving optic elements are IR photodetectors.

17. A system in accordance with Claim 15, wherein said optical system is configured to actuate said at least one dispenser when a container within said cavity impedes both said first and second optical paths.

18. A system in accordance with Claim 14, wherein said optical system is configured to actuate said at least one dispenser when a container is sensed within said dispenser cavity.

19. A system in accordance with Claim 14, wherein said dispenser is configured to mount within a refrigerator, an ice machine, and a beverage dispenser.

20. A refrigerator comprising:

a fresh food compartment;

a freezer compartment separated from said fresh food compartment by a mullion;

a door movably positioned to cover said freezer compartment when in a closed position;

a water supply in flow communication with at least one of:

an ice maker positioned within said freezer compartment coupled to said water supply; and

a through the door water and ice dispenser coupled to said water supply and said ice maker; and

an optical system operationally coupled to said dispenser, said optical system configured to:

transmit a plurality of infrared (IR) pulses from at least two IR light emitting diodes (LED);

receive a plurality of IR pulses from said at least two IR LEDs; and

actuate said dispenser to allow water and/or ice to flow therethrough upon sensing a container within said dispenser.